

10/265887

1/29/04

R. I. 120 WE CLAIM:

- 17.
- A film bulk acoustic resonator comprising:
a support;
5 a resonator assembly provided on the support, the assembly including a lower electrode, an upper electrode and a piezoelectric member disposed between the upper and the lower electrodes;
a first space located between the lower electrode and the support; and
a second space communicating with the first space, the second space being larger than the
10 first space.

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18.

A film bulk acoustic resonator comprising:

- a substrate;
a base layer formed on the substrate;
a resonator assembly including a first electrode, a second electrode and a piezoelectric
15 layer disposed between the first and the second electrodes, the first electrode being held in contact with the base layer; and
a space in the base layer under the resonator assembly;
wherein the first electrode includes a recess facing the space.

Amendment filed March 2, 2005

Reply to OA dated December 2, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:
1.126

Listing of Claims:

1 Claim 17 (currently amended): A film bulk acoustic resonator comprising:

2 a support substrate made of a first material;

3 a base layer formed on the substrate and made of a second material which differs from the

4 first material;

5 a resonator assembly provided on the support base layer, the assembly including a lower
6 electrode, an upper electrode and a piezoelectric member disposed between the upper and the lower
7 electrodes;

8 a first space portion located formed only in the base layer between the lower electrode and
9 the support; and

10 a second space portion communicating formed only in the base layer in communication with
11 the first space portion, the second space portion being larger than the first space portion.

1 2
1 Claim 18 (original): A film bulk acoustic resonator comprising:

2 a substrate;

3 a base layer formed on the substrate;

4 a resonator assembly including a first electrode, a second electrode and a piezoelectric layer

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5 disposed between the first and the second electrodes, the first electrode being held in contact with
6 the base layer; and
7 a space in the base layer under the resonator assembly;
8 wherein the first electrode includes a recess facing the space.